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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,296	10/14/2003	Makoto Ouchi	MIPFP059	7107

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EXAMINER

HENDERSON, ADAM

ART UNIT	PAPER NUMBER
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2622

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/686,296

Applicant(s)

OUCHI ET AL.

Examiner

Adam L. Henderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-11 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6-7, 10, and 11 are rejected under 35 U.S.C. 102(c) as being anticipated by Chen (US Patent 6,552,744).

3. With regard to claim 1 Chen discloses an image file selection method of selecting multiple image files available for composing a panoramic image from a plurality of image files, each of the plurality of image files including image data and image attribute information, the image attribute information includes positional information representing a geographical position at a time of photographing, the method comprising the steps of (column 3 lines 28-53):

(a) reading out the positional information from each of the plurality of image files (column 5 line 60 – column 6 line 9); and

(b) selecting multiple image files photographed at geographical positions within a predetermined distance as the multiple image files available for composing the panoramic image based on the positional information (column 3 lines 54-67).

4. With regard to claim 2 Chen discloses the image file selection method in accordance with claim 1, wherein, the image attribute information further includes image direction information

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indicative of a geometrical direction of a photographed image (pitch, yaw, roll in column 3 lines 28-53),

the step (a) includes the step of reading out the image direction information from each of the plurality of image files (column 5 line 60 – column 6 line 9), and

the step (b) includes the step of selecting the multiple image files such that an overlap of photographed areas of the multiple image files are larger than a first preset value, the overlap being determined based on the image direction information of the multiple image files (column 3 lines 54-67 and column 6 lines 10-56, FIG. 3) [since overlap is disclosed as being required there must inherently be a required amount of overlap, even if it is only 1 pixel of overlap, otherwise by definition there is no overlap].

5. With regard to claim 3 Chen discloses the image file selection method in accordance with claim 2, wherein,

the step (b) further includes the step of:

(b-1) computing a focal length of an optical system used for generation of each image file according to the image attribute information with respect to the each image file (column 4 line 55 – column 5 line 8, distance between camera and subject);

(b-2) calculating a field angle in a width direction of a image data of the each image file according to the computed focal length with respect to the each image file (column 4 line 55 – column 5 line 8, camera's angle of view);

(b-3) specifying the photographed area according to the field angle and the image direction information with respect to the each image file (column 3 lines 38-53 and column 4 line 55 – column 5 line 17); and

(b-4) selecting the multiple image files such that an overlap of photographed areas in the width direction are larger than a predetermined value, the overlap of photographed areas in the width direction being specified based on the specified photographed areas (column 4 line 55 – column 5 line 30).

6. With regard to claim 6 Chen discloses the image file selection method in accordance with claim 2, wherein, the step (b) includes the step of specifying an overlap of the photographed areas based on an angle between the geometrical directions of the multiple image files, the angle between the geometrical directions being computed based on the image direction information (column 4 line 47 – column 5 line 30).

7. With regard to claim 7 Chen discloses the image file selection method in accordance with claim 2, wherein, the step (b) further includes the step of selecting the multiple image files available for composing the panoramic image if the overlap of photographed areas are larger than the first preset value and smaller than a second preset value (column 4 line 47 – column 5 line 30) [the first preset value is discussed about, with regard to the second preset value, there must be some determination of this since in column 5 lines 14-16 Chen discloses redundant frames being discarded and not used for the stitching operation].

8. Claims 10 and 11 are rejected under the same analysis as claim 1.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US Patent 6,552,744) in view of Wei et al. (US Patent 6,757,418).

12. With regard to claim 8 Chen discloses the image file selection method in accordance with claim 1, but fails to disclose wherein, the image attribute information further includes time information indicative of a time of photographing, the step (a) further includes the step of reading out the time information; and the step (b) further includes the step of selecting the multiple image files available for composing the panoramic image if a period between the times of photographing is larger than a first preset period and smaller than a second preset period.

Wei et al. disclose wherein, the image attribute information further includes time information indicative of a time of photographing, the step (a) further includes the step of reading out the time information; and the step (b) further includes the step of selecting the multiple image files available for composing the panoramic image if a period between the times of photographing is larger than a first preset period and smaller than a second preset period

(column 1 lines 23-29) [since all images are taken simultaneously, then the first and second preset times are those times directly preceding and directly proceeding the time of image acquisition].

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of Chen to include the simultaneous capture of multiple images for a stitching operation as taught by Wei et al. in order to prohibit differences in the overlap area from forming as taught by Wei et al. (column 1 lines 23-29).

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US Patent 6,552,744) in view of Katayama et al. (JP 09-322054).

14. With regard to claim 9 Chen discloses the image file selection method in accordance with claim 1, but fails to disclose wherein, the image attribute information further includes an exposure program information, exposure time information, shutter speed information, and aperture information, the exposure program information indicating a class of an exposure program used to set exposure for photographing, the exposure time information indicating an exposure time for photographing, the shutter speed information indicating a shutter speed for photographing, the aperture information indicating an aperture for photographing, the step (a) further includes the step of reading out the exposure program information, the exposure time information, the shutter speed information, and the aperture information from each of the plurality of image files, and the step (b) further includes the step of selecting the multiple image files such that settings of the exposure time, the shutter speed, and the aperture in a manual mode of the exposure program used for photographing are identical.

Katayama et al. disclose wherein, the image attribute information further includes an exposure program information, exposure time information, shutter speed information, and aperture information, the exposure program information indicating a class of an exposure program used to set exposure for photographing, the exposure time information indicating an exposure time for photographing, the shutter speed information indicating a shutter speed for photographing, the aperture information indicating an aperture for photographing, the step (a) further includes the step of reading out the exposure program information, the exposure time information, the shutter speed information, and the aperture information from each of the plurality of image files, and the step (b) further includes the step of selecting the multiple image files such that settings of the exposure time, the shutter speed, and the aperture in a manual mode of the exposure program used for photographing are identical (abstract) [the photographing conditions are the exposure, shutter, etc. and it is disclosed that they are not changed throughout the period used for taking all images for a panoramic image].

Allowable Subject Matter

15. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: There is no disclosure in the prior art of the specific calculations used in claim 4 nor is there the disclosure of the 35mm film equivalent as disclosed in claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam L. Henderson whose telephone number is 571-272-8619. The examiner can normally be reached on Monday-Friday, 7am to 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALH
25 April 2007



NGOC-YEN VU
SUPERVISORY PATENT EXAMINER